Amendments To The Claims

The listing of claims presented below will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1. **(currently amended)** A liquid crystal-soluble particle comprising:

a core having a diameter smaller than 100 nm and comprising one or a plurality of nanoparticles; and

a protective layer comprising liquid crystal molecules or liquid crystal-like molecules provided on its periphery**, wherein the liquid crystal molecules or the liquid crystal-like molecules are at least one kind selected from the group consisting of 4-cyano-4'-n-pentylbiphenyl, 4-cyano-4'-n-heptyloxybiphenyl, cholesteryl acetate, cholesteryl benzoate, 4-carboxyphenyl ethyl carbonate, 4-carboxyphenyl n-butyl carbonate, phenyl benzoate, biphenyl phthalate, benzylidene-2-naphthylamine, 4'-n-butoxybenzylidene-4-acetylaniline, N,N'-bisbenzylidenebenzidine, p-dianisarbenzidine, 4,4'-azoxydianisole, 4,4'-di-n-butoxyazoxybenzene, poly(p-phenyleneterephthalamide), 4-mercapto-4'-n-biphenyl, and 4-cyano-4'-(ω-mercaptopentyl)biphenyl**.

2. (cancelled)

3. (original) The liquid crystal-soluble particle according to claim 1, wherein the short axis width of the liquid crystal molecule or liquid crystal-like molecule is equal to or less than the diameter of the core.

4. (previously presented) A method for manufacturing the liquid crystal-soluble particle of claim 1, wherein the nanoparticle is a metal nanoparticle made of metal, and a plurality of metal ions are reduced in a solution containing the liquid crystal molecules or liquid crystal-like molecules to allow the liquid crystal molecules or liquid crystal-like molecules to bond to the periphery of the metal nanoparticle to form a particle.

5. (original) The method for manufacturing a liquid crystal-soluble particle according to claim 4, wherein the metal nanoparticle is made of at least one kind of metal atom selected from Ag, Pd, Au, Pt, Rh, Ru, Cu, Fe, Co, Ni, Sn and Pb.

6. (original) The method for manufacturing a liquid crystal-soluble particle according to claim 4, wherein the metal ion is chosen from at least one metal salt among metal halides, metal acetates, metal perhalogenates, metal sulfates, metal nitrates, metal carbonates and metal oxalates, as a starting raw material.

7. (original) A liquid crystal device element comprising:

a pair of parallel substrates;

a conductive layers provided respectively on facing inner surfaces of these substrates;

liquid crystal alignment layers provided respectively with pre-tilt angle on facing inner surfaces of these conductive layers; and

a liquid crystal layer formed in between these pair of liquid crystal alignment

layers,

wherein the liquid crystal-soluble particles according to any of claims 1 to 3 are dissolved or dispersed in the liquid crystal layer.

8. (original) The liquid crystal device element according to claim 7, wherein a control circuit of applying voltage, while modulating at least frequency among frequency and voltage, is provided on the conductive layer for varying light transmittance of the liquid crystal layer, and

under a constant applied voltage, an electro-optical response is turned on by switching the frequency of applied electric field from low frequency to high frequency, and the electro-optical response is turned off by switching the frequency from high frequency to low frequency.

9. (original) The liquid crystal device element according to claim 8, wherein a time constant of response concerning turning the electro-optical response on and off is in a range of 0.1 ms to 10 ms.

10. (original) The liquid crystal device element according to claim 8, wherein a frequency modulation range of the electro-optical response is in a range of 20 Hz to 100 kHz.

11. (original) The liquid crystal device element according to claim 8, wherein the nanoparticle constituting the liquid crystal-soluble particle is at least one kind of metal

atom selected from Ag, Pd, Au, Pt, Rh, Ru, Cu, Fe, Co, Ni, Sn and Pb.

12. (original) A method for driving a liquid crystal device element, wherein the liquid crystal device element according to claim 8 is driven by using an active matrix mode.